

CLAIMS

What is claimed is:

1. A brake and a wheel assembly comprising;
a support,
5 an axle supported by said support,
a wheel rotatably supported on said axle,
a brake band supported by said support tangentially across the
wheel, and
an actuator movably supported in said assembly for movement
10 between first and second brake-applying positions to engage said brake band
with the wheel in either of said first or second brake-applying positions.
2. A brake and wheel assembly according to claim 1 wherein said
brake band includes a first braking surface interposed between said actuator
15 and the wheel to engage said actuator in said first brake-applying position.
3. A brake and wheel assembly according to claim 2 wherein said
brake band includes a second braking surface interposed between said
actuator and the wheel in spaced relation to said first braking surface for
20 engaging said actuator in said second brake-applying position.
4. A brake and wheel assembly according to claim 3 wherein said
actuator includes a pivot arm having a proximal end for pivotally connecting
said actuator for pivotal movement relative thereto and a distal end extending
25 radially from said proximal end thereof, a pedal carried by said distal end for

moving said actuator between said first and second brake-applying positions.

5. A brake and wheel assembly according to claim 4 wherein said actuator includes a shoulder having first and second opposing ends, said
5 shoulder connected to said pivot arm between said pedal and said proximal end for selectively engaging said first and second braking surfaces.

6. A brake and wheel assembly according to claim 5 wherein said brake band is interposed between said shoulder and the wheel, said shoulder
10 including an interior surface extending between said first and second opposing ends for engaging said brake band in either of said first or second brake-applying positions.

7. A brake and wheel assembly according to claim 5 wherein said
15 shoulder extends transversely away from said pivot arm at a generally perpendicular angle thereto.

8. A brake and wheel assembly according to claim 6 wherein said first braking surface includes a detent extending from said brake band toward
20 the shoulder for engaging said interior surface of said shoulder adjacent said first end.

9. A brake and wheel assembly according to claim 6 wherein said second braking surface includes a detent extending from said brake band toward said shoulder for engaging said interior surface of said shoulder adjacent said second end.

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10. A brake and wheel assembly according to claim 4 wherein said pedal includes a first lever portion extending transversely away from said pivot arm at a generally perpendicular angle thereto for receiving a downwardly-directed force to initiate clockwise pivotal movement of said pivot arm relative to the axle for moving said actuator to said first brake-applying position.

11. A brake and wheel assembly according to claim 10 wherein said pedal includes a second lever portion extending transversely away from said pivot arm at a generally perpendicular angle thereto for receiving a downwardly-directed force to initiate counterclockwise pivotal movement of said pivot arm relative to said axle for moving said actuator to said second brake-applying position.

12. A brake and wheel assembly according to claim 11 wherein said distal end is connected to said pedal intermediate said first and second lever portions.

13. A brake and wheel assembly according to claim 12 wherein said brake band includes opposed upturned ends carried by said support and extending outwardly away at a first angle for suspending said brake band on said support.

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14. A brake and wheel assembly according to claim 13 wherein said support includes slots, each of said upturned ends including a tab extending outwardly away at a second angle for being positioned in one of said slots to maintain said brake band within said housing.

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15. A brake and wheel assembly according to claim 14 wherein said support includes a housing for receiving said first and second braking surfaces therein, said housing having opposed sidewalls between which said brake band is captured, whereby said first and second braking surfaces are continually biased toward said interior surface of said shoulder.

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16. A brake and wheel assembly according to claim 15 wherein said brake band includes a central portion carrying said first and second braking surfaces, wherein application of said downwardly directed force on said first lever portion of said pedal and the resulting clockwise pivotal movement of said pivot arm generates a tangential force applied by said interior surface on said first braking surface, whereby a shear deformation of said brake band occurs wherein said first braking surface moves away from said end and engages said interior surface in said first braking position.

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17. A brake and wheel assembly according to claim 15 wherein said brake includes a central portion carrying said first and second braking surfaces, wherein application of said downwardly directed force on said second lever portion of said pedal and the resulting counterclockwise pivotal movement of said pivot arm generates a tangential force applied by said interior surface on said second braking surface, whereby a shear deformation of said brake band occurs wherein said second braking surface moves away from said end and engages said interior surface in said second braking position.

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18. A cart for transporting an article comprising;
a frame for receiving and supporting the article,
a plurality of spaced brake and wheel assemblies carried by said frame, each of said brake and wheel assemblies including
a housing carried by said frame and having opposed sidewalls defining slots,
an axle supporting said frame and extending outwardly away at an angle therefrom,
a wheel rotatably supported on said axle and received within said housing,
a brake band having opposed free ends received within said slots for suspending said brake band tangentially across said wheel and spaced detents extending from said brake band away from said wheel, and
an actuator having a proximal end carried by said frame for pivotal movement relative to said axle, a distal end extending radially from

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said proximal end, a pedal connected to said distal end, and a shoulder connected to said actuator between said proximal end and said pedal, said pedal for receiving a downwardly-directed force to initiate pivotal movement of said actuator, whereby said shoulder moves through an arc relative to said wheel and frictionally engages each of said detents in a selected one of two
5 brake-applying positions.